Remarks

Claims 1-12 and 18-28 are currently under examination in the above-captioned matter, claims 13-17 and 29-33 having been withdrawn due to a prior restriction requirement. Applicants respectfully acknowledge the Examiner's withdrawal of the election of species requirement from the Official Action dated February 6, 2007.

Please cancel claims 3, 5, 13-17, 19, 21, and 29-33. Please add new claims 34-41

After entry of the amendment, claims 1, 2, 4, 6-12, 18, 20, 22-28, and new claims 34-41 are pending in this application. Claims 1, 18 and 35 being independent. Support for the amendment and new claims is found at page 8, line 8-14; page 9, line 10-16; in the original claims and in the Examples. In particular the Examples show how the amount of viscosity modifier is calculated based on the amount of silicate and lubricant such that the total percentage of silicate + lubricant + viscosity modifier can exceed 100. No new matter has been added.

Remarks made herein are based on the claims as amended hereby.

35 U.S.C. § 102 Rejections

Claims 1-5, 9 and 11 are rejected under 35 U.S.C. 102(b) as being anticipated by Leah et al (US 4,227,932A). The rejection is traversed. Leah is directed to a dry pulverant potassium silicate cement composition that is mixed with water in a nozzle of a concrete gunning machine moments before application. Once mixed with water, this composition quickly turns to concrete. Leah teaches coating the reactive cement particles with oil to prevent moisture in the packaged cement from releasing acid and starting reactions in the shipping container, Leah, col. 5, line 32-38. There is no teaching or suggestion of at least one lubricating component selected from among soaps, metallic soaps, waxes, and polytetrafluoroethylenes, and at least one viscosity modifier in an amount of 1 to 10 wt% based on the total mass of alkali silicate and lubricating component as required by claim 1. The rejection of claim 1, and the claims depending therefrom, as anticipated by Leah should be withdrawn.

Claims 1-2, 4, 6, 18 and 22 are rejected under 35 U.S.C. 102(b) as being anticipated by Tsutsui et al. (US 4,169,916 A). The rejection is traversed. Tsutsui is directed to a method of coating steel sheet with a composition of lithium silicate and at least one water-soluble or water-dispersible saturated or unsaturated fatty acid compound, higher alcohol wax, polyethylene type resin, fluorine type resin or silicone type resin. The reference provides no teaching or suggestion to add 1 to 10 weight % viscosity modifier as recited in claim 1 and claim 18. The rejection of claim 1 and claim 18, and the claims depending therefrom, as anticipated by Tsutsui should be withdrawn.

Claims 1-4, 7, 9, 18-20, 23 and 25 are rejected under 35 U.S.C. 102(b) as being anticipated by Laut et al. (US 4,403,059A). The rejection is traversed. Laut is directed to a composition comprising 8.4 - 32 wt% alkali metal silicate on a dry solids basis (30% to 80% by weight, based on the weight of the total composition, of an aqueous alkali metal silicate solution having a solids content of from about 28% to 40% by weight). The composition also includes 1-5 wt% zinc stearate and 10-40 wt% powdered inorganic filler, and optionally up to 12 wt% alkali resistant organic polymer, based on the total composition, Col. 2, line 1-47. The amounts taught by Laut fail to anticipate claims 1 and 18, and the claims depending thereon.

The lowest amount of substances from the Laut composition that could arguably act as viscosity modifiers is 10 g of inorganic filler out of 100 g total composition. Converting this 10 g of inorganic filler to a percentage on the basis of the total mass of alkali silicate and lubricating component, one finds that the lowest possible amount of potential viscosity modifiers taught by Laut is 10/32 + 5 = 27 wt%. There is no teaching or suggestion in Laut to add at least one viscosity modifier in an amount of 1 to 10 wt% based on the total mass of alkali silicate and lubricating component, as recited in claims 1 and 18. The rejection of claim 1 and claim 18, and the claims depending therefrom, as anticipated by Laut should be withdrawn.

Claims 1, 3-5, 9, 11, 18-21, 25 and 27 are rejected under 35 U.S.C. 102(b) as being anticipated by Rupe et al. (US 4,116,851A). The rejection is traversed. Rupe is directed

to highly alkaline thickened aqueous liquid hypohalite compositions containing mineral oil, water insoluble saturated fatty acid esters, water insoluble ethers, and mixtures thereof, and an alkali metal silicate. The saturated fatty acid esters of Rupe are not soaps, but are fatty acids with the active hydrogen replaced by an alkyl group of a monohydric alcohol, see Hawley's Condensed Chemical Dictionary 12th ed., pg 508. Claims 1 and 18 require at least one lubricating component selected from among soaps, metallic soaps, waxes, and polytetrafluoroethylenes, and at least one viscosity modifier in an amount of 1 to 10 wt% based on the total mass of alkali silicate and lubricating component. There is no teaching or suggestion found in Rupe of these claim features. The rejection of claims 1 and 18, and the claims depending therefrom, as anticipated by Rupe should be withdrawn.

35 U.S.C. § 103 Rejections

Claims 6-7 and 12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Leah et al (US 4,227,932A). This rejection is traversed. The arguments made regarding the patentability of claim 1 over Leah are incorporated herein by reference with respect to these claims.

Claim 7 is directed to a composition of claim 1 further comprising at least one metallic soap selected from calcium stearate, aluminum stearate, barium stearate, lithium stearate, and zinc stearate. The Patent Office admits that Leah fails to teach the presence of soap, but asserts that the teaching of adding surfactant to aid wetting the dry particles from Leah renders claim 7 obvious. According to the Patent Office "various stearate soaps are useful as anionic surfactants". It is known in the art that such soaps are limited to alkali metal soaps, which are water soluble. There is no teaching or suggestion in the references that metallic soaps can act as surfactants or to modify Leah to incorporate the calcium stearate, aluminum stearate, barium stearate, lithium stearate, and zinc stearate of claim 7. The rejection of claims 6-7 and 12 as obvious over Leah should be withdrawn.

Claims 7, 9-10, 19, 23 and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tsutsui et al. (US 4,169,916A). The rejection is traversed. The

arguments made regarding the patentability of claim 1 over Tsutsui are incorporated herein by reference with respect to claims 7, 9 and 10. The arguments made regarding the patentability of claim 18 over Tsutsui are incorporated herein by reference with respect to claims 19, 23 and 25-26.

Regarding claims 9, 10, 25 and 26, which recite compositions comprising at least one organic polymer-based thickeners, Applicant submits that there is no teaching or suggestion to add such thickeners in the Tsutsui disclosure.

Tsutsui is directed to a method of coating steel sheet with a composition of lithium silicate and at least one water-soluble or water-dispersible saturated or unsaturated fatty acid compound, higher alcohol wax, polyethylene type resin, fluorine type resin or silicone type resin, which may optionally include other polymers. It states that:

> Water soluble organic high polymers, or surface active agents including non-ionic, anionic and cationic types may be also added to the treatment solution in order to disperse the lubricant uniformly in the treatment solution, or to improve wetting of the steel sheet with the treatment solution.

The Patent Office's reliance on the quoted teaching of Tsutsui does not appear to support a conclusion that it would be obvious to add the claimed organic polymer-based thickeners. The purpose for the Tsutsui addition is to disperse the lubricant or to improve wetting. There is no teaching or suggestion that polymers useful for this purpose, even if added to Tsutsui's composition, would act as thickeners. There are thousands of "water soluble organic high polymers, or surface active agents", only some of which may act as thickeners. Applicant respectfully submits that the Tsutsui teaching does not meet the burden of proof to establish a prima facie case of obviousness. Certainly, this general statement would not have motivated one of skill in the art to select thickeners from the multitude of organic high polymers and surface active agents available for use in Tsutsui, particularly in the amounts recited in claims 1 and 18, and the claims depending therefrom. As such, the rejection of claims 7, 9-10, 19, 23 and 25-26 as obvious over Tsutsui should be withdrawn.

Claims 1-2, 4, 8, 18, 20 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Seymour et al. (US 5,358,554A). This rejection is traversed. Seymour is directed to liquid compositions comprising a paraffin wax emulsion and alkali metal silicate solution conferring increased strength and water repellency to paper and paperboard. The reference teaches against fillers stating: "The preferred compositions are free from, or have low contents of, non-wax solids such as inert fillers or the like." Col. 3, lines 31-33. There is no teaching or suggestion that would motivate one of skill in the art to modify Seymour by adding 1 to 10 weight % viscosity modifier as recited in claim 1 and claim 18, and the claims depending therefrom, particularly where Seymour itself teaches that it is preferred that its compositions are free from non-wax solids. The rejection of claims 1-2, 4, 8, 18, 20 and 24 as obvious over Seymour should be withdrawn.

Claims 10-12 and 26-28 are rejected under 35 U.S.C. 103(a) as being unpatentable over Laut et al (US 4,403,059A). The rejection is traversed. The arguments made regarding the patentability of claim 1 over Laut are incorporated herein by reference with respect to claims 10-12. The arguments made regarding the patentability of claim 18 over Laut are incorporated herein by reference with respect to claims 26-28. The rejection of claims 10-12 and 26-28 as obvious over Laut should be withdrawn.

New Claims

New independent claim 35 recites an aqueous composition that **consists of**

an alkali silicate, as represented by the formula $M_2O{\bullet}nSiO_2$, where n represents a number of 2 to 9, and M represents at least one of Na, K, Li, and NR_4 , where R independently represents a hydrogen atom or an alkyl group;

at least one lubricating component is selected from among oils, soaps, metallic soaps, waxes, and polytetrafluoroethylenes; and

at least one viscosity modifier in an amount of 1 to 10 wt% based on the total mass of alkali silicate and lubricating component.

This composition is not anticipated or obvious from the art of record where Leah

requires the presence of "an acid releasing hardener"; Laut fails to teach or suggest the amount of viscosity modifier claimed, as discussed above; Rupe requires the presence of a "hypohalite bleach component"; and Tsutsui and Seymour fail to teach or suggest a viscosity modifier, as discussed above.

References Not Made of Record from the Information Disclosure Statement

Regarding the references that were not initialed nor considered by the examiner, the reference listed as "JP10-217394" on the substitute 1449A/PTO form is identified as an "A" reference on the second page of the International Search Report of Application PCT/JP02/07380, which accompanied the Information Disclosure Statement filed January 26, 2004.

The reference listed as "JP**64**-21785" on the substitute 1449A/PTO form appears to have been a clerical error. This reference should have read "JP **1**-21785".

"JP **1**-21785" is identified as a "Y" reference on the first page of the International Search Report of Application PCT/JP02/07380, which accompanied the Information Disclosure Statement filed January 26, 2004.

The Examiner is respectfully requested to make these references of record on the attached Information Disclosure Statement.

Respectfully submitted,

/Mary K. Cameron/
Mary K. Cameron
(Reg. No. 34,789)
Attorney for Applicants
248-589-4672

Henkel Corporation
Patent Law Department
1001 Trout Brook Crossing
Rocky Hill, CT 06067